

said first sensor means comprises [includes] a detector plate mounted on one of said slide shaft [and] or said saw unit, and an optical sensor mounted on the other of said slide shaft and said saw unit;

said detector plate having a plurality of parallel identification bars marked thereon, and said parallel bars being spaced from each other by a predetermined distance;

said optical sensor being operable to detect [the] movement of said parallel identification bars as a change in a reflected light pattern.

an
7. (Amended) The circular saw as defined in claim 1 wherein the circular saw includes the second lock means and said second lock means [includes] comprises a fixing member operable to fix said saw unit in position relative to said table in the vertical direction, an actuator for operating said fixing member, and second sensor means for detecting the horizontal movement of said saw unit.

Claim 8, at page 23, line 22, before "sensor means," please insert ✓ -- second --.

Claim ✓ 11, at page 24, line 19, before "sensor means," please insert -- second -- and at page 24, line 25, before "movement," please delete "the."

Claim ✓ 15, at page 27, line 2, please replace "direction" with -- directions --.

17. (Amended) The circular saw as defined in claim 15 wherein:

said first sensor means comprises [includes] a detector

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either said slide shaft or said saw unit

plate mounted on ~~one of said slide shaft [and] or said saw unit~~, and a first optical sensor mounted on the other of said slide shaft and said saw unit;

said detector plate having a plurality of first parallel identification bars marked thereon, and said first parallel identification bars being spaced from each other by a predetermined distance;

said first optical sensor being operable to detect [the] movement of said first parallel identification bars as a change in a reflected light pattern;

said second sensor means [includes] comprises a plurality of second parallel identification bars marked on said slide shaft and includes a second optical sensor provided on said holder;

said second parallel identification bars being spaced from each other by a predetermined distance in a longitudinal direction of said slide shaft; and

said second optical sensor being operable to detect [the] movement of said second parallel identification bars as a change in a reflected light pattern.

Please add the following new claims:

18. An apparatus comprising:

a table,

a saw blade coupled to the table, the saw blade being movable at least in a horizontal direction relative to the table and a vertical direction relative to the table and

at least one lock selected from the group consisting of a first lock and a second lock, wherein:

the first lock can prevent the saw blade from moving in the horizontal direction relative to the table when the saw

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blade is moving in the vertical direction and
the second lock can prevent the saw blade from moving in
the vertical direction relative to the table when the saw
blade is moving in the horizontal direction.

19. An apparatus as in claim 18 wherein the apparatus
comprises both said first lock and said second lock.

20. An apparatus as in claim 19 further comprising:
a first sensor coupled to the first lock, the first
sensor capable of detecting vertical movement of the saw blade
and

a second sensor coupled to the second lock, the second
sensor capable of detecting horizontal movement of the saw
blade.

21. An apparatus as in claim ¹⁹20, further comprising:
a first actuator coupled to the first lock and first
sensor and
a second actuator coupled to the second lock and the
second sensor, wherein the first and second actuators convert
electric signals generated by the sensors into mechanical
energy to engage the first and second locks, respectively.

22. An apparatus as in claim 21, further comprising:
a support arm mounted on the table and coupled to the saw
blade,

a slide member horizontally slidable relative to the
support arm and

a vertically pivotable hinge coupling said saw blade to
the slide member, wherein:

the first sensor can detect vertical pivotal movement of

the saw blade relative to the slide member and the first lock can fix the slide member in a position relative to the support arm in response to detection of vertical pivotal movement and the second sensor can detect horizontal pivotal movement of the saw blade relative to the support arm and the second lock can fix the saw blade in a position relative to the slide member in response to detection of horizontal pivotal movement.

23. An apparatus as in claim 22 wherein:

the slide member comprises a slide shaft slidably inserted into a holder provided on the support arm,

the first lock comprises a first screw inserted into a first threaded hole formed in the holder in a direction perpendicular to an axial direction of the slide shaft, the first screw having one end that can abut the slide shaft,

the first actuator can rotate the first screw in both clockwise and counterclockwise directions so as to move the first screw toward and away from the slide shaft,

the second lock comprises a second screw inserted into a second threaded hole formed in the saw unit in a direction parallel to the pivotal axis of the saw unit,

the slide shaft having a flange portion that includes an abutting surface extending within a plane perpendicular to the pivotal axis of the saw blade, such that one end of the second screw can abut the abutting surface of the flange portion and

the second actuator can rotate the second screw in both clockwise and counterclockwise directions so as to move the second screw toward and away from the abutting surface.

24. An apparatus as in claim 23 further comprising:

a first dust cover mounted on the holder and protecting the first actuator and the first screw from the outside

environment and

a second dust cover covering the saw blade and protecting the second actuator and the second screw from the outside environment.

25. An apparatus as in claim 24 further comprising:

a first detector plate mounted on one of the slide shaft or the saw blade, wherein the first sensor is a first optical sensor mounted on the other of the slide shaft and the saw unit, the first detector plate having a plurality of first parallel identification bars that are spaced from each other by predetermined distances, and the first sensor can detect movement of the first parallel identification bars as a change in a reflected light pattern and

a plurality of second parallel identification bars marked on the slide shaft, wherein the second sensor is a second optical sensor coupled to the holder, the second parallel identification bars are spaced from each other by predetermined distances in a longitudinal direction of the slide shaft and the second optical sensor can detect movement of the second parallel identification bars as a change in a reflected light pattern.

REMARKS

The Office Action dated September 9, 1999, raising a restriction requirement in the above case has been received and reviewed. The Office Action is requiring that Applicant make an election from among a number of distinct inventions. Applicant traverses this requirement to the extent that it is a restriction requirement rather than a provisional species election under MPEP 803.02.

Claim 1 (and newly added claim 18) are Markush claims.